

STEREO MOC Status Report
Time Period: 2016:228 - 2016:234

STEREO Ahead (STA) Status:

1. The following Ground System anomalies/events occurred during this reporting period:

- On day 228, during the DSS-65 support, turbo decoder lock was lost briefly at 0908z and again at 1441z. This anomaly resulted in the loss of 2 frames of SSR data.
- On day 231, during the DSS-65 support, turbo decoder lock was lost briefly at 1031z. This anomaly resulted in the loss of 1 frame of SSR data.
- On day 231, during the DSS-26 support, turbo decoder lock was lost intermittently between 2017z and 2023z. This anomaly resulted in the loss of 50 frames of real-time telemetry and SSR data.
- On day 233, during the DSS-45 support, telemetry lock was lost intermittently between 0128z and 0151z due to heavy rain at the Canberra complex. This anomaly resulted in the loss of 5461 frames of real-time telemetry and SSR data. See DR# C112283 for more information.
- On day 234, during the DSS-26 support, turbo decoder lock was lost intermittently between 1718z and 2212z. This anomaly resulted in the loss of 42 frames of real-time telemetry and SSR data.

2. The following spacecraft/instrument events occurred during this week. The Ahead observatory operated nominally during this week.

- The average daily science data return for Ahead was 6.8 Gbits during this week.

STEREO Behind (STB) Status:

1. The following Ground System anomalies/events occurred during this reporting period:

- On day 232, during the DSS-26 34m support, using the 80 kW transmitter to minimize 70m contentions, at 1430z the transmitter could not be calibrated. The configuration was corrected and command began at 1447z. Later, the transmitter tripped off-line at 1502z. The transmitter re-calibrated and was placed back on-line at 1516z. This anomaly resulted in the failure to radiate approximately 36 battery recovery commands covering 4 frequency segments. 157 commands were sent for battery state of charge recovery. See DR# G117421 and G117422 for more information.
- On day 233, during the DSS-26 34m support, using the 80 kW transmitter to minimize 70m contentions, 350 commands were sent for battery state of charge recovery.
- On day 234, during the DSS-14 70m support for carrier recovery, the downlink carrier was detected at approximately 22:33:23z after contact was lost on October 1, 2014 during testing for a two month long superior solar conjunction. Radio science receivers confirmed a signal was present from 22:27:40z to end of track. Carrier signal level fluctuated between -166 to -179 dBm with an approximate 2 minute rotation. DSS-14 was able to lock up to the 25 kHz subcarrier, confirming the LGA is in use, however, no symbol lock was achieved as expected since commands were sent to power off the avionics for battery charge recovery. The downlink was received for 2.4 hours through end of track. The GSFC mission director declared spacecraft emergency at 235-0030z. No telemetry was received as expected since the avionics were purposely powered off to maintain battery state of charge. While quite early, recovery is expected to proceed slowly to preserve a positive power balance, assess observatory health, re-establish attitude control, and warm all subsystems and instruments.